UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,960	08/07/2003	Clark A. Carty	72255/26765	1231

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EXAMINER
CHAN, SAI MING

ART UNIT	PAPER NUMBER
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/635,960	CARTY ET AL.
	Examiner	Art Unit	
	Sai-Ming Chan	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/7/2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *2/25/2005*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on February 25, 2005 has

been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section
122(b), by another filed in the United States before the invention by the applicant for patent or
(2) a patent granted on an application for patent by another filed in the United States before
the invention by the applicant for patent, except that an international application filed under
the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an
application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5-6, 9-11, 15-16, and 19-20 are rejected under 35 U.S.C. 102(e) as

being anticipated by **Gillies et al. (U.S. Patent Publication # 20030212821).**

Consider **claim 1, Gillies et al.** clearly disclose and show an application-

specific integrated circuit comprising: switch circuitry for receiving a data frame

and forwarding it to a predetermined port (fig. 9; abstract, lines 1-2); inspection

circuitry for inspecting attributes of the data frame (fig. 2a (70), paragraph 54);

decision circuitry for instructing the switch circuitry to forward the data frame

based on the attributes (fig. 2a (routing device 30); paragraph 54).

Consider **claim 5,** and **as applied to claim 1 above, Gillies et al.** clearly

disclose and show the integrated circuit further comprising protocol conversion

circuitry for translating the data frame between a first protocol and a second

protocol (fig. 1 (20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired

and wireless)).

Consider **claim 6,** and **as applied to claim 5 above, Gillies et al.** clearly

disclose and show integrated circuit wherein the first protocol is an Ethernet

network protocol and the second protocol is a wireless protocol (fig. 1(20),

paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Consider **claim 11, Gillies et al.** clearly disclose and show an network

switch comprising: a plurality of ports for connecting to a plurality of network

devices (fig. 9), for exchanging data frames between at least some of the

network devices (fig. 9); a microprocessor-driven (fig. 13, paragraphs 128 & 129)

application-specific integrated circuit comprising switch circuitry for receiving a

data frame and forwarding it to a predetermined port (fig. 9; abstract, lines 1-2);

inspection circuitry for inspecting attributes of the data frame (fig. 2a (70),

paragraph 54); decision circuitry for instructing the switch circuitry to forward the

data frame based on the attributes (fig. 2a (routing device 30); paragraph 54).

Consider **claim 15,** and **as applied to claim 11 above, Gillies et al.** clearly

disclose and show the network switch further comprising protocol conversion

circuitry for translating the data frame between a first protocol and a second

protocol (fig. 1(20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired

and wireless)).

Consider **claim 16,** and **as applied to claim 15 above, Gillies et al.** clearly

disclose and show the network switch wherein the first protocol is an Ethernet

network protocol and the second protocol is a wireless protocol (fig. 1(20),

paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action: .

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillies **et al. (U.S.Patent Publication # 20030212821)**, in view of **Sinivaara et al. (U.S. Patent # 7020439).**

Consider **claim 2**, as **applied to claim 1 above**, Gillies et al., clearly

disclose and show an application-specific integrated circuit as described.

However, Gillies et al. do not specifically disclose the inspection circuitry

which will block data frame from non-wireless ports.

In the same field of endeavor, Sinivaara et al. clearly show and disclose

the inspection circuitry is configured to inspect for wireless attributes (fig. 1;

column 3,lines 46-52 (mobile terminals)) and wherein the decision circuitry is

configured to block non-wireless data frames from wireless ports (fig. 1; column

3, lines 46-52; lines 60-65 (examine the service report to prevent incorrect

decision)).

Therefore it would have been obvious to a person of ordinary skill in the art

at the time the invention was made to incorporate an integrated circuit, as taught

by Rosner et al., and provide the inspection and switch circuitries, as taught by

Sinivaara et al, in order to transmit the data frames efficiently.

Consider **claim 12**, as **applied to claim 11 above**, Rosner et al., as

modified by Sinivarra et al., clearly disclose and show an application-specific

integrated circuit as described.

However, Rosner et al. do not specifically disclose the inspection circuitry which will block data frame from non-wireless ports.

In the same field of endeavor, Sinivaara et al. clearly show and disclose the inspection circuitry is configured to inspect for wireless attributes (fig. 1; column 3,lines 46-52 (mobile terminals)) and wherein the decision circuitry is configured to block non-wireless data frames from wireless ports (fig. 1; column 3, lines 46-52; lines 60-65 (examine the service report to prevent incorrect decision)).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate an integrated circuit, as taught by Rosner et al., and provide the inspection and switch circuitries, as taught by Sinivaara et al, in order to transmit the data frames efficiently.

Claims 3-4, 7-10, 13-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gillies et al. (U.S. Patent Publication # 20030212821)**, in view of **Rosner et al. (U.S. Patent # 7149213)**.

Consider **claim 3**, as **applied to claim 1 above**, Gillies et al. clearly disclose and show the integrated circuit as described.

However, Gillies et al. do not specifically disclose the priority involved in data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the inspection circuitry is configured to determine whether a data frame is of higher priority (column 8, lines 54-61) than another data frame, and wherein the decision circuitry is configured to grant precedence (column 9, lines 9-13) in forwarding to the higher priority data frame.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate an integrated circuit, as taught by Gillies et al., and consider the priority in data transmission, as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 4**, as **applied to claim 3 above**, Gillies et al. clearly disclose and show the integrated circuit as described.

However, Gillies et al. do not specifically disclose the priority involved in data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the integrated circuit further comprising a queue for prioritizing data frames (column 10, lines 1-7), so as to provide quality of service.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate an integrated circuit, as

taught by Gillies et al., and consider the priority queue in data transmission, as

taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 7**, as **applied to claim 1 above**, Gillies et al. clearly

disclose and show the integrated circuit as described.

However, Gillies et al. do not specifically disclose the memory map

involved in the data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the

integrated circuit further comprising a memory map (fig. 2 (36); fig. 7 (step 78))

for storing and retrieving data frames in a memory according to a data frame's

address.

Therefore it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to incorporate an integrated circuit, as

taught by Gillies et al., and make use of the memory map in data transmission,

as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 8**, as **applied to claim 7 above**, Gillies et al. as modified

by Rosner et al., clearly disclose and show the integrated circuit as described.

However, Gillies et al., as modified by Rosner et al., do not specifically

disclose the priority involved in data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the integrated circuit further comprising circuitry for selectively retrieving data frames based on priority (column 11, lines 38-57).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network switch, as taught by Gillies et al., and make use of the memory map in data transmission, as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 9,** and **as applied to claim 7 above,** Gillies et al., as modified by Rosner et al., clearly disclose and show the integrated circuit further comprising circuitry for translating data frames between a first protocol and a second protocol (fig. 1(20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Consider **claim 10,** and **as applied to claim 9 above, Gillies et al.** as modified by Rosner et al., clearly disclose and show the integrated circuit wherein the first protocol is an Ethernet network protocol and the second protocol as a wireless protocol (fig. 1(20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Consider **claim 13**, as **applied to claim 11 above**, Gillies et al. clearly

disclose and show the network switch as described.

However, Gillies et al. do not specifically disclose the priority involved in

data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the

inspection circuitry is configured to determine whether a data frame is of higher

priority (column 8, lines 54-61) than another data frame, and wherein the

decision circuitry is configured to grant precedence (column 9, lines 9-13) in

forwarding to the higher priority data frame.

Therefore it would have been obvious to a person of ordinary skill in the

art at the time the invention was made to incorporate a network switch, as taught

by Gillies et al., and consider the priority in data transmission, as taught by

Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 14**, as **applied to claim 13 above**, Gillies et al. clearly

disclose and show the network switch as described.

However, Gillies et al. do not specifically disclose the priority involved in

data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the

network switch further comprising a queue for prioritizing data frames (column

10, lines 1-7), so as to provide quality of service.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network switch, as taught by Gillies et al., and consider the priority queue in data transmission, as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 17**, as **applied to claim 11 above**, Gillies et al. clearly disclose and show the network switch as described.

However, Gillies et al. do not specifically disclose the memory map involved in the data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the network switch further comprising a memory map (fig. 2 (36); fig. 7 (step 78)) for storing and retrieving data frames in a memory according to a data frame's address.

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network switch, as taught by Gillies et al., and make use of the memory map in data transmission, as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 18**, as **applied to claim 17 above**, Gillies et al. as modified by Rosner et al., clearly disclose and show the network switch as described.

However, Gillies et al., as modified by Rosner et al., do not specifically disclose the priority involved in data transmission.

In the same field of endeavor, Rosner et al. clearly show and disclose the network switch further comprising circuitry for selectively retrieving data frames based on priority (column 11, lines 38-57).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a network switch, as taught by Gillies et al., and make use of the memory map in data transmission, as taught by Rosner et al., in order to transmit the data frames efficiently.

Consider **claim 19, and as applied to claim 17 above, Gillies et al.** as modified by Rosner et al., clearly disclose and show the network switch further comprising circuitry for translating data frames between a first protocol and a second protocol (fig. 1(20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Consider **claim 20, and as applied to claim 19 above, Gillies et al.** as modified by Rosner et al., clearly disclose and show the network switch wherein the first protocol is an Ethernet network protocol and the second protocol as a wireless protocol (fig. 1(20), paragraph 48, lines 1-3, lines 10-13; fig. 9 (between wired and wireless)).

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed**

to:

> Commissioner for Patents
> P.O. Box 1450
> Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

> Customer Service Window
> Randolph Building
> 401 Dulany Street
> Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Sai-Ming Chan
S.C./ sc

March 28, 2007